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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/509,872	09/11/2000	Ian H. Duncan	98784-US	1351
23553	7590	06/26/2008		
MARKS & CLERK P.O. BOX 957 STATION B OTTAWA, ON K1P 5S7 CANADA			EXAMINER NGUYEN, STEVEN H D	
			ART UNIT	PAPER NUMBER
			2619	
			MAIL DATE	DELIVERY MODE
			06/26/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/509,872	<b>Applicant(s)</b> DUNCAN ET AL.	
	<b>Examiner</b> STEVEN HD NGUYEN	<b>Art Unit</b> 2619	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 and 11-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

1. In view of the appeal brief filed on 4/4/08, PROSECUTION IS HEREBY REOPENED.

A new ground rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/JAYANTI K PATEL/

Supervisory Patent Examiner, Art Unit 2619

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-8 and 11-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Hardwick (USP 5550816) in view of Bakke (USP 5566170).

4. Hardwick discloses a method of forwarding packets in a communication system having multiple incoming, service interfaces and multiple output service interfaces for providing service to multiple distinct and isolated user networks, said method comprising maintaining multiple forwarding rules based on routing topology and policing information relevant to each of said distinct and isolated user networks (Col. 16, lines 51-57, forward rules is created based access policy and routing topology between the sub-networks); receiving said packets at one of said incoming service interfaces (Col. 28, lines 53-63). However, Hardwick fail to disclose selecting an appropriate forwarding rule based on a source address in said packets and on the incoming service interface from which the packets are received; and forwarding said packets to one of said output service interfaces, the decision as to which output service interface to forward the packets to being based on a destination address in said packets and information in said selected forwarding rule. In the same field of endeavor, Bakke discloses a selecting an appropriate forwarding rule based on a source address in said packets and said incoming service interface and forwarding said packets to one of said output service interfaces, the decision as to which output service interface to forward the packets to being based on a destination address in said packets and information in said selected forwarding rule (Col. 11, lines 1-40, forwarding rule such bridge or source route selected based on source address and inbound interface and using the DA to select an output interface in order to forward packet based on forward rule).

Since, Hardwick suggests the use of Hakke's forwarding method. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method of routing a packet based on destination address and a forward rule which is selected from source address and inbound interface as disclosed by Hakke into the teaching of Hardwick. The motivation would have been to reduce transit delay.

As claims 2-6, Hardwick discloses said service interfaces support realms, each realm relating to a specific instance of an internetworking service function which is a public Internet access service (Fig 11) or a virtual private network (VPN) service (Col. 16, lines 51-57) which is bridge (Fig 11, Ref 224) or a network layer connectivity service (Fig 11).

As claim 7, Hardwick discloses said communication system includes ATM transport fabric (Fig 11, ATM switch).

As claim 8, Hardwick discloses a communication system comprising multiple service interfaces providing instances of service to one of a plurality of distinct and isolated user networks (Fig 4); multiple route servers for calculating multiple forwarding rules relating to instances of service to which said service interfaces belong based on routing topology and policing information (Col. 16, lines 51-57, forward rules is created based access policy and routing topology between the sub-networks) and the multiple forwarding rules being particular to their respective service interfaces (Col. 29, lines 4 to col. 30, lines 17). However, Hardwick fails to disclose edge forwarders to direct said service interfaces to user networks based on information in said forwarding rules. In the same field of endeavor, Hakke discloses edge forwarders to direct said service interfaces to user networks based on information in said forwarding rules (Col. 11, lines 1-40, forwarding rule such bridge or source route selected based

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on source address and inbound interface and using the DA to select an output interface in order to forward packet based on forward rule).

Since, Hardwick suggests the use of Hakke's forwarding method. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method of routing a packet based on a forward rule as disclosed by Hakke into the teaching of Hardwick. The motivation would have been to reduce transit delay.

As claim 11, Hardwick discloses said service interfaces related to physical and logical connections (Fig 4).

As claim 12, Hardwick discloses said logical connections include multiple traffic flows from one or more ingress ports (Fig 2).

As claims 13-16, Hardwick discloses one of said instances of service is an internetworking service function (Fig 11) which is a Public Internet access service (Fig 11); a virtual private network (VPN) service (Col. 16, lines 51-57) being a bridged and/or routed connectivity service (Fig 11, 224).

As claim 17, Hardwick discloses said internetworking service function is provided over an ATM network (Fig 11).

As claim 18, Hardwick discloses said internetworking service function supports multiple protocols (Fig 11).

As claim 19, Hardwick discloses said internetworking service function provides services at both the packet and frame levels (Fig 11).

As claim 20, Hardwick discloses internetworking service function is managed by a single service provider (Fig 11).

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5. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

6. Claim 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Hardwick and Hakke as applied to claim 8 above, and further in view of Yuasa.

Hardwick and Hakke fail to disclose Multi-protocol over ATM (MPOA) service via a MPOA client lookup cache management function. In the same field of endeavor, Yuasa disclose Multi-protocol over ATM (MPOA) service via a MPOA client lookup cache management function (Fig 60, Ref 475).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply MPOA as disclosed Yuasa into Hardwick and Hakke. The motivation would have been to reduce transit delay.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN HD NGUYEN whose telephone number is (571)272-3159. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/STEVEN HD NGUYEN/